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Product Specification

AU OPTRONICS CORPORATION

( ) Preliminary Specifications
(V) Final Specifications

Module	**13.1" HD+ 16:9 Color TFT-LCD with LED Backlight design**
Model Name	B131RW02 V0 (H/W:0A)
Note	***LED Backlight with driving circuit design***

Customer	**Date**	**Approved by**	**Date**
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Checked & Approved by	**Date**	**Prepared by**	**Date**
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Note: This Specification is subject to change without notice.		**NBBU Marketing Division AU Optronics corporation**	

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Record of Revision

Version and Date	Page	Old description	New Description	Remark
0.1 2010/09/01	All	First Edition for Customer		
1.0 2010/12/17	All	N/A	Final Spec	
	5	Pixel Pitch 0.1506X0.1506	Pixel Pitch 0.18075X0.18075	Revised
	5	Glass Thickness:0.21mm	Glass Thickness:0.21mm*2=0.42mm	Revised
	22	No shipping label weidth value	Fill shipping label weidth: 23mm	Revised

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1. Handling Precautions

1) Since front polarizer is easily damaged, pay attention not to scratch it.
2) Be sure to turn off power supply when inserting or disconnecting from input connector.
3) Wipe off water drop immediately. Long contact with water may cause discoloration or spots.
4) When the panel surface is soiled, wipe it with absorbent cotton or other soft cloth.
5) Since the panel is made of glass, it may break or crack if dropped or bumped on hard surface.
6) Since CMOS LSI is used in this module, take care of static electricity and insure human earth when handling.
7) Do not open nor modify the Module Assembly.
8) Do not press the reflector sheet at the back of the module to any directions.
9) At the insertion or removal of the Signal Interface Connector, be sure not to rotate nor tilt the Interface Connector of the TFT Module.
11) After installation of the TFT Module into an enclosure (Notebook PC Bezel, for example), do not twist nor bend the TFT Module even momentary. At designing the enclosure, it should be taken into consideration that no bending/twisting forces are applied to the TFT Module from outside. Otherwise the TFT Module may be damaged.
12) Small amount of materials having no flammability grade is used in the LCD module. The LCD module should be supplied by power complied with requirements of Limited Power Source (IEC60950 or UL1950), or be applied exemption.
13) Disconnecting power supply before handling LCD modules, it can prevent electric shock, DO NOT TOUCH the electrode parts, cables, connectors and LED circuit part of TFT module that a LED light bar build in as a light source of back light unit. It can prevent electrostic breakdown.

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2. General Description

B131RW02 V0 is a Color Active Matrix Liquid Crystal Display composed of a TFT LCD panel, a driver circuit, and LED backlight system. The screen format is intended to support the 16:9 HD, 1600(H) x900(V) screen and 262k colors (RGB 6-bits data driver) with LED backlight driving circuit. All input signals are display port interface compatible.

B131RW02 V0 is designed for a display unit of notebook style personal computer and industrial machine.

2.1 General Specification

The following items are characteristics summary on the table at 25 ℃ condition:

Items	Unit	Specifications			
Screen Diagonal	[mm]	331.81			
Active Area	[mm]	289.2 X162.675			
Pixels H x V		1600x3(RGB) x 900			
Pixel Pitch	[mm]	0.18075X0.18075			
Pixel Format		R.G.B. Vertical Stripe			
Display Mode		Normally White			
White Luminance (I_{LED}=18mA) (Note: ILED is LED current)	[cd/m^2]	410 typ. (5 points average, gamma correction off) 300 min. (5 points average, gamma correction off)			
Luminance Uniformity		1.82 max. (9 points)			
Contrast Ratio		500 typ			
Response Time	[ms]	16 typ/ 30 Max (gamma correction off)			
Nominal Input Voltage VDD	[Volt]	+2.5 typ.			
Power Consumption	[Watt]	3.81 typ. (Include Logic and Blu power)			
Weight	[Grams]	158 typ.			
Physical Size Include bracket & PCBA	[mm]		Min.	Typ.	Max.
		Length	298.6	299.1	299.6
		Width	183.8	184.3	184.8
		Thickness		2.35	2.99
Electrical Interface		eDP 2Lane			
Glass Thickness	[mm]	0.21mm*2=0.42mm			
Surface Treatment		Anti-Glare, Hardness 4H,			
Support Color		262K colors (RGB 6-bit)			

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Temperature Range Operating Storage (Non-Operating)	 [°C] [°C]	 0 to +50 -20 to +60
RoHS Compliance		TBD

2.2 Optical Characteristics

The optical characteristics are measured under stable conditions at 25℃ (Room Temperature) :

Item		Symbol	Conditions	Min.	Typ.	Max.	Unit	Note
White Luminance I_{LED}=18mA			5 points average	300	410	-	cd/m²	1, 4, 5.
Viewing Angle		θ_R	Horizontal (Right) CR = 10	40	55	-	degree	4, 9
		θ_L	(Left)	40	55	-		
		ϕ_H	Vertical (Upper) CR = 10	30	50	-		
		ϕ_L	(Lower)	40	55	-		
Luminance Uniformity		δ_{9P}	9 Points	-	-	1.82		2, 3, 4
Contrast Ratio		CR		300	500	-		4, 6
Cross talk		%				TBD		4, 7
Response Time		T_r	Rising	-	3	6	msec	4, 8
		T_f	Falling	-	13	24		
		T_{RT}	Rising + Falling	-	16	30		
Color / Chromaticity Coodinates	Red	Rx	CIE 1931	0.609	0.653	0.697		4
		Ry		0.295	0.411	0.380		
	Green	Gx		0.241	0.286	0.330		
		Gy		0.614	0.654	0.699		
	Blue	Bx		0.113	0.157	0.201		
		By		0.000	0.041	0.083		
	White	Wx		0.273	0.313	0.354		
		Wy		0.282	0.320	0.358		
NTSC u',v'		%		-	104	-		

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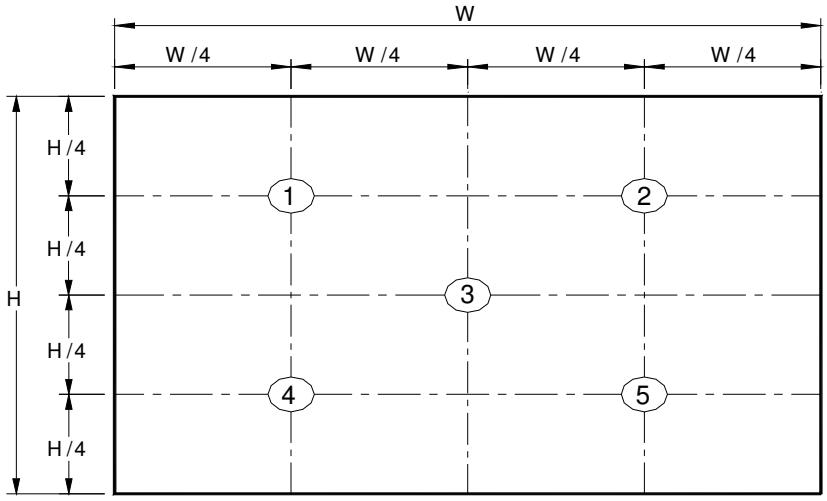
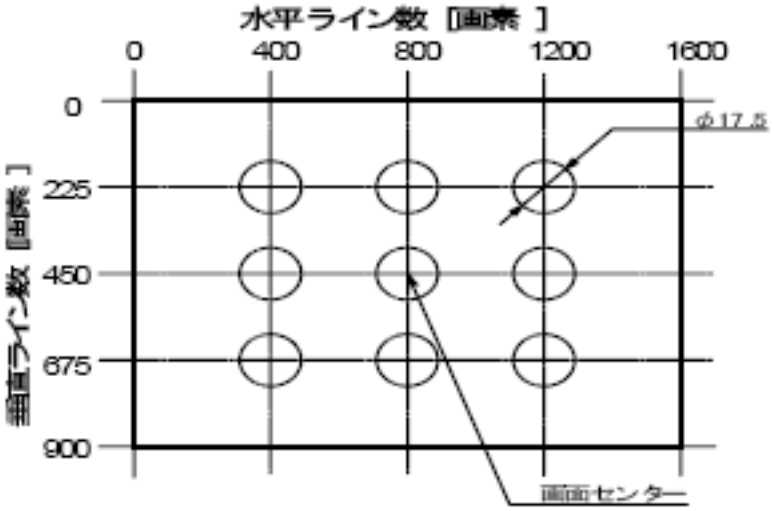
Note 1: 5 points position (Ref: Active area)



Note 2: 9 points position (Ref: Active area)



Note 3: The luminance uniformity of 5 or 9 points is defined by dividing the maximum luminance values by the minimum test point luminance

$$\delta_{W5} = \frac{\text{Maximum Brightness of five points}}{\text{Minimum Brightness of five points}}$$

$$\delta_{W9} = \frac{\text{Maximum Brightness of thirteen points}}{\text{Minimum Brightness of thirteen points}}$$

Note 4: Measurement method

The LCD module should be stabilized at given temperature for 30 minutes to avoid abrupt temperature change during measuring. In order to stabilize the luminance, the measurement should be executed after lighting Backlight for 60 minutes in a stable, windless and dark room, and it should be measured in the center of screen.

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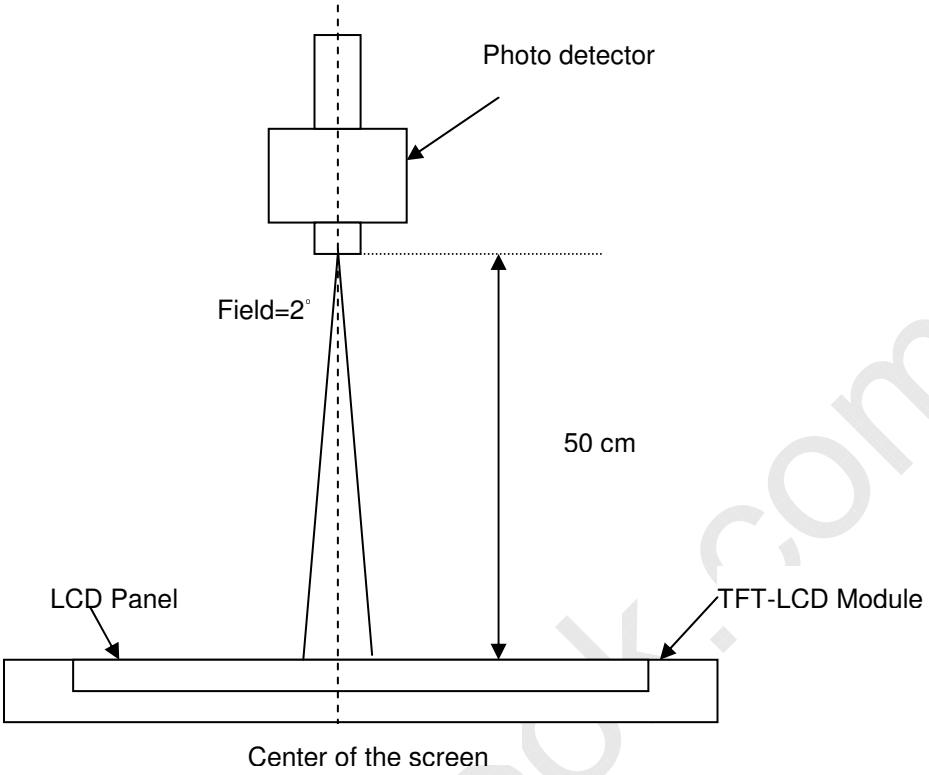

Note 5： Definition of Average Luminance of White (Y_L):

Measure the luminance of gray level 63 at 5 points，Y_L = [L (1)+ L (2)+ L (3)+ L (4)+ L (5)] / 5

L (x) is corresponding to the luminance of the point X at Figure in Note (1).

Note 6： Definition of contrast ratio:

Contrast ratio is calculated with the following formula.

$$\text{Contrast ratio (CR)} = \frac{\text{Brightness on the “White” state}}{\text{Brightness on the “Black” state}}$$

Note 7： Definition of Cross Talk (CT)

$CT = |Y_B - Y_A| / Y_A \times 100\ (\%)$

Where

Y_A = Luminance of measured location without gray level 0 pattern (cd/m_2)

Y_B = Luminance of measured location with gray level 0 pattern (cd/m_2)

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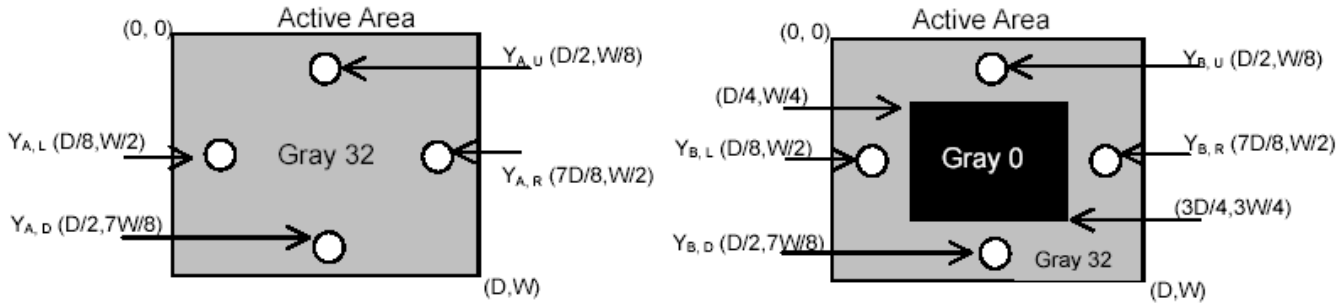
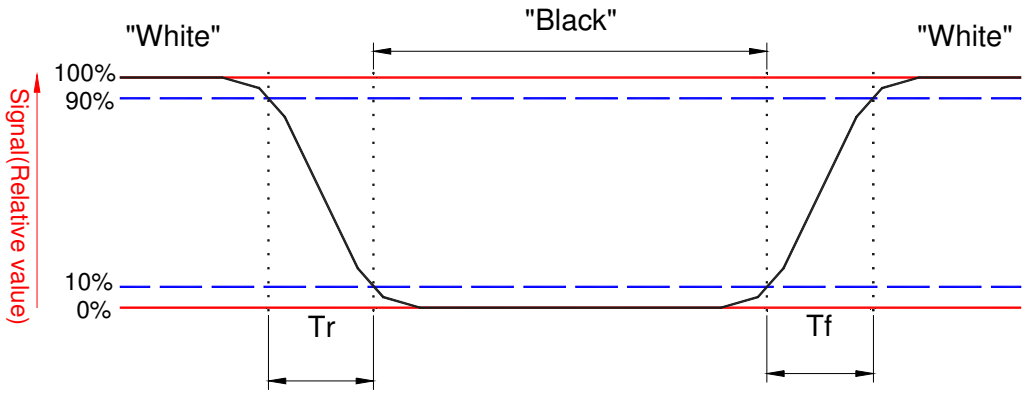


Note 8: Definition of response time:

The output signals of BM-7 or equivalent are measured when the input signals are changed from “Black” to “White” (falling time) and from “White” to “Black” (rising time), respectively. The response time interval between the 10% and 90% of amplitudes. Refer to figure as below.



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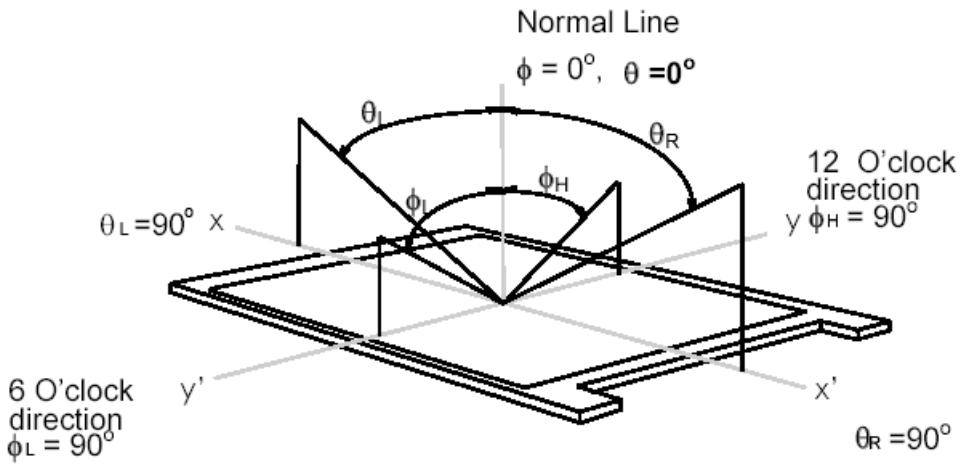
Note 9. Definition of viewing angle

Viewing angle is the measurement of contrast ratio ≧10, at the screen center, over a 180° horizontal and 180° vertical range (off-normal viewing angles). The 180° viewing angle range is broken down as follows; 90° (θ) horizontal left and right and 90° (Φ) vertical, high (up) and low (down). The measurement direction is typically perpendicular to the display surface with the screen rotated about its center to develop the desired measurement viewing angle.



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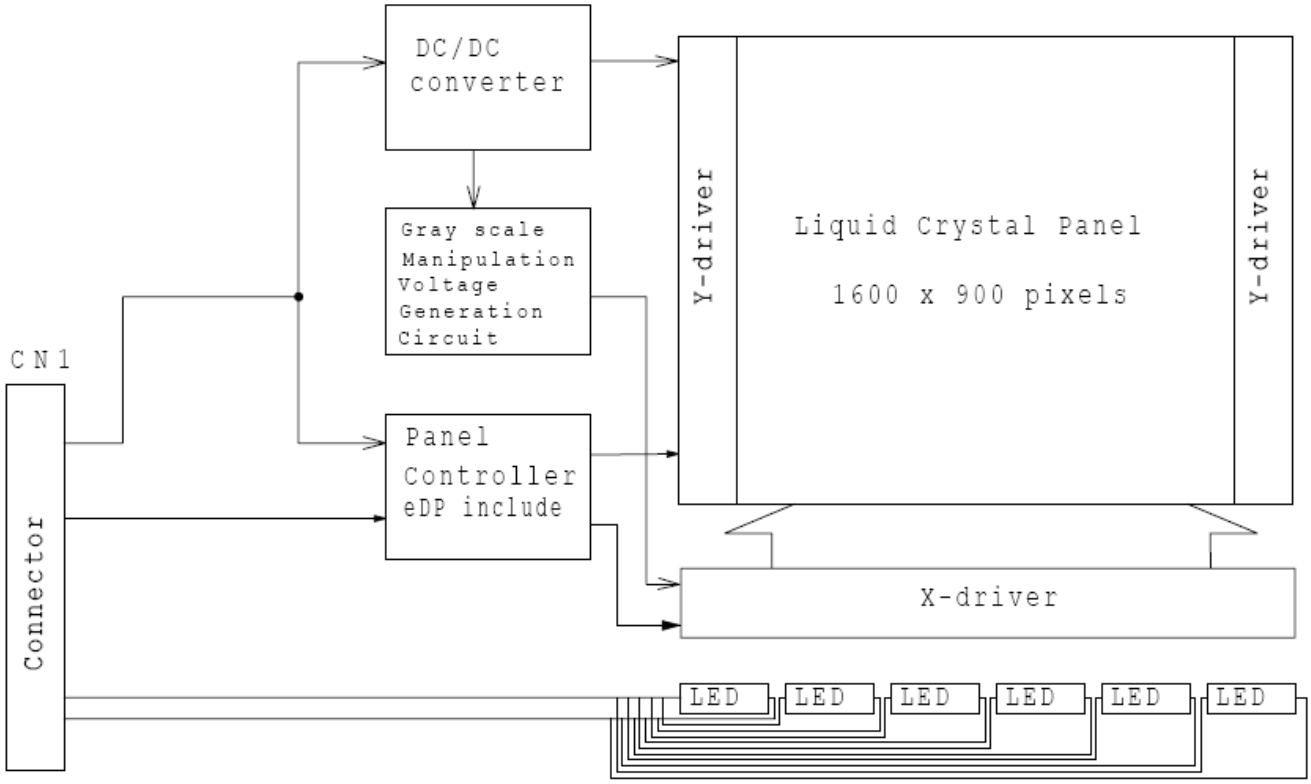
3. Functional Block Diagram

The following diagram shows the functional block of the 13.1 inches wide Color TFT/LCD



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4. Absolute Maximum Ratings

An absolute maximum rating of the module is as following:

4.1 Absolute Ratings of TFT LCD Module

Item	Symbol	Min	Max	Unit	Conditions
Logic/LCD Drive Voltage	Vin	-0.3	+3.0	[Volt]	Note 1,2

4.2 Absolute Ratings of Environment

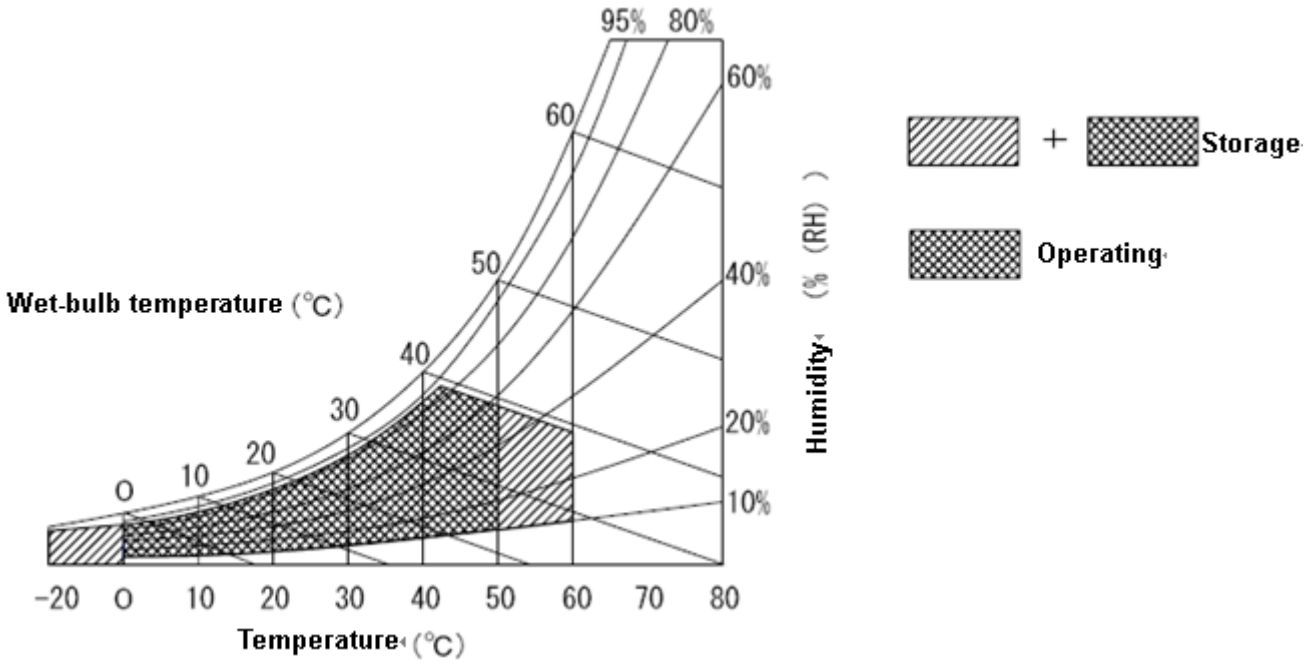
Item	Symbol	Min	Max	Unit	Conditions
Operating Temperature	TOP	0	+50	[°C]	Note 4
Operation Humidity	HOP	10	90	[%RH]	Note 4
Storage Temperature	TST	-20	+60	[°C]	Note 4
Storage Humidity	HST	10	90	[%RH]	Note 4

Note 1: At Ta (25℃)

Note 2: Permanent damage to the device may occur if exceed maximum values

Note 3: LED specification refer to section 5.2

Note 4: For quality performance, please refer to AUO IIS (Incoming Inspection Standard).



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5. Electrical Characteristics

5.1 TFT LCD Module

5.1.1 Power Specification

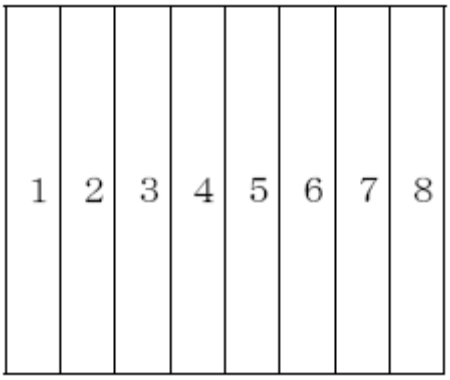
Input power specifications are as follows;

The power specification are measured under 25℃ and frame frenquency under 60Hz

Symble	Parameter	Min	Typ	Max	Units	Note
VDD	Logic/LCD Drive Voltage	2.35	2.5	2.7	[Volt]	
PDD	VDD Power	1.13	-	1.38	[Watt]	Note 1
IDD	IDD Current	-	330	420	[mA]	Note 1

Note 1 : Display pattern

Item	Color
1.	White
2	Yellow
3	Purple
4	Red
5	Light Blue
6	Green
7	Blue
8	Black



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5.2 Backlight Unit

5.2.1 LED characteristics

Parameter guideline for LED driving is under stable conditions at 25℃ (Room Temperature):

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
LED Operation Current	IRLED			18	[mA]	
Light Bar Operation Voltage (for reference)	VLB	-	31	34	[Volt]	Note 1
BLU Power consumption (for reference)	PLED	-	-	4.32	[Watt]	(Ta=25℃), Note 2 Vin =12V
LED life Time (Typical)	N/A	10,000	-	-	Hour	(Ta=25℃), Note 3 I_F=20 mA

Note 1 : The value showed in the table is one light bar's operation voltage.

Note 2: Calculator value for reference PLED = V_F (Normal Distribution) * I_F (Normal Distribution) / Efficiency

Note 3 : The LED life-time define as the estimated time to 50% degradation of initial luminous.

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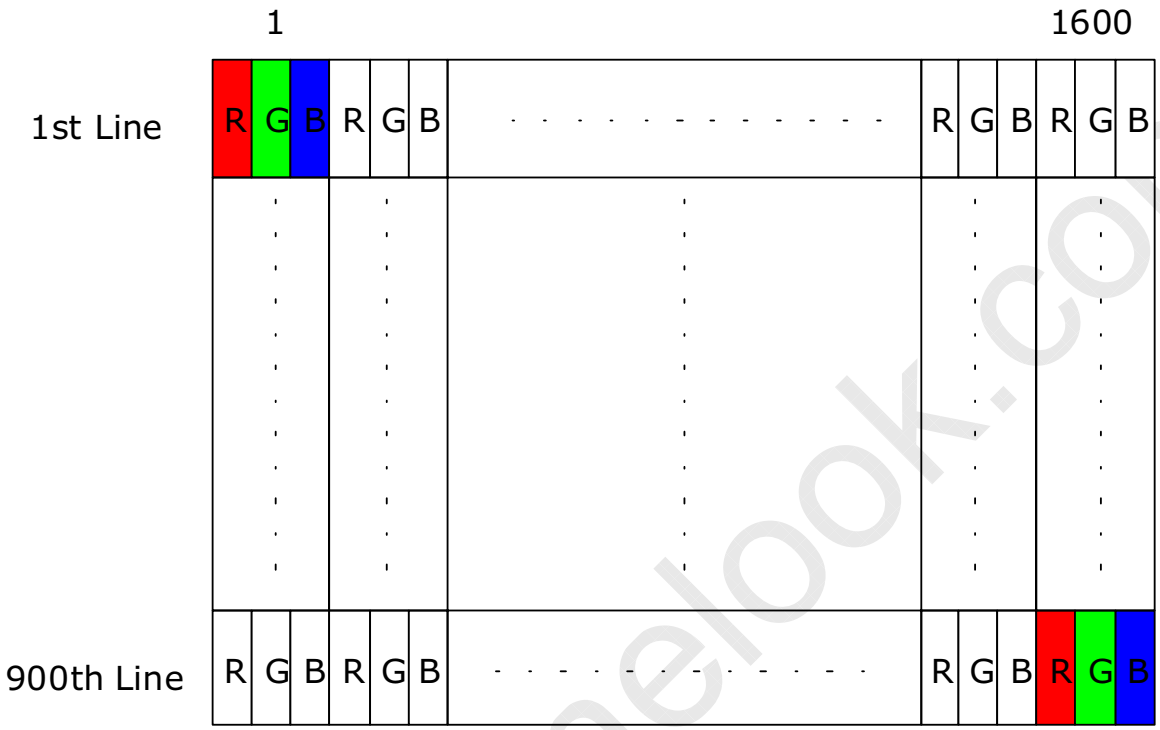
6. Signal Interface Characteristic

6.1 Pixel Format Image

Following figure shows the relationship of the input signals and LCD pixel format.



6.2 Integration Interface Requirement

6.2.1 Connector Description

Physical interface is described as for the connector on module.

These connectors are capable of accommodating the following signals and will be following components.

Connector Name / Designation	For Signal Connector
Manufacturer	I-PEX
Type / Part Number	20461-030E-12
Mating Housing/Part Number	20459-130T-10

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6.2.2 Pin Assignment

CN1 INPUT SIGNAL (20461-030E-12 / I-PEX)

[Mating Connector :20459-130T-10 / I-PEX]

Terminal No.	Symbol	Function
1	HPD	HPD signal pin
2	NC	Non-Connection
3	Lane1-	Comp Signal Link Lane1
4	Lane1+	True Signal Link Lane1
5	Lane0-	Comp Signal Link Lane0
6	Lane0+	True Signal Link Lane0
7	AUX-	Comp Signal Auxiliary Ch.
8	AUX+	True Signal Auxiliary Ch.
9	NC	Non-Connection
10	NC	Non-Connection
11	NC	Non-Connection
12	NC	Non-Connection
13	VCD1	LED Cathode
14	VCD2	LED Cathode
15	VCD3	LED Cathode
16	VCD4	LED Cathode
17	VCD5	LED Cathode
18	VCD6	LED Cathode
19	NC	Non-Connection
20	NC	Non-Connection
21	V_{SS}	GND
22	V_{SS}	GND
23	V_{SS}	GND
24	V_{SS}	GND
25	V_{DD}	Power Supply, 2.5V
26	V_{DD}	Power Supply, 2.5V
27	V_{DD}	Power Supply, 2.5V
28	NC	Non-Connection
29	VAD	LED Anode
30	VAD	LED Anode

Note 1) Please refer to AC, DC timing specification of VESA DisplayPort Version 1.1a.

Note 2) Please connect GND pin to ground. Don't use it as no-connect nor connection with high impedance.

Note 3) Please connect NC to nothing. Don't connect it to ground nor to other signal input.

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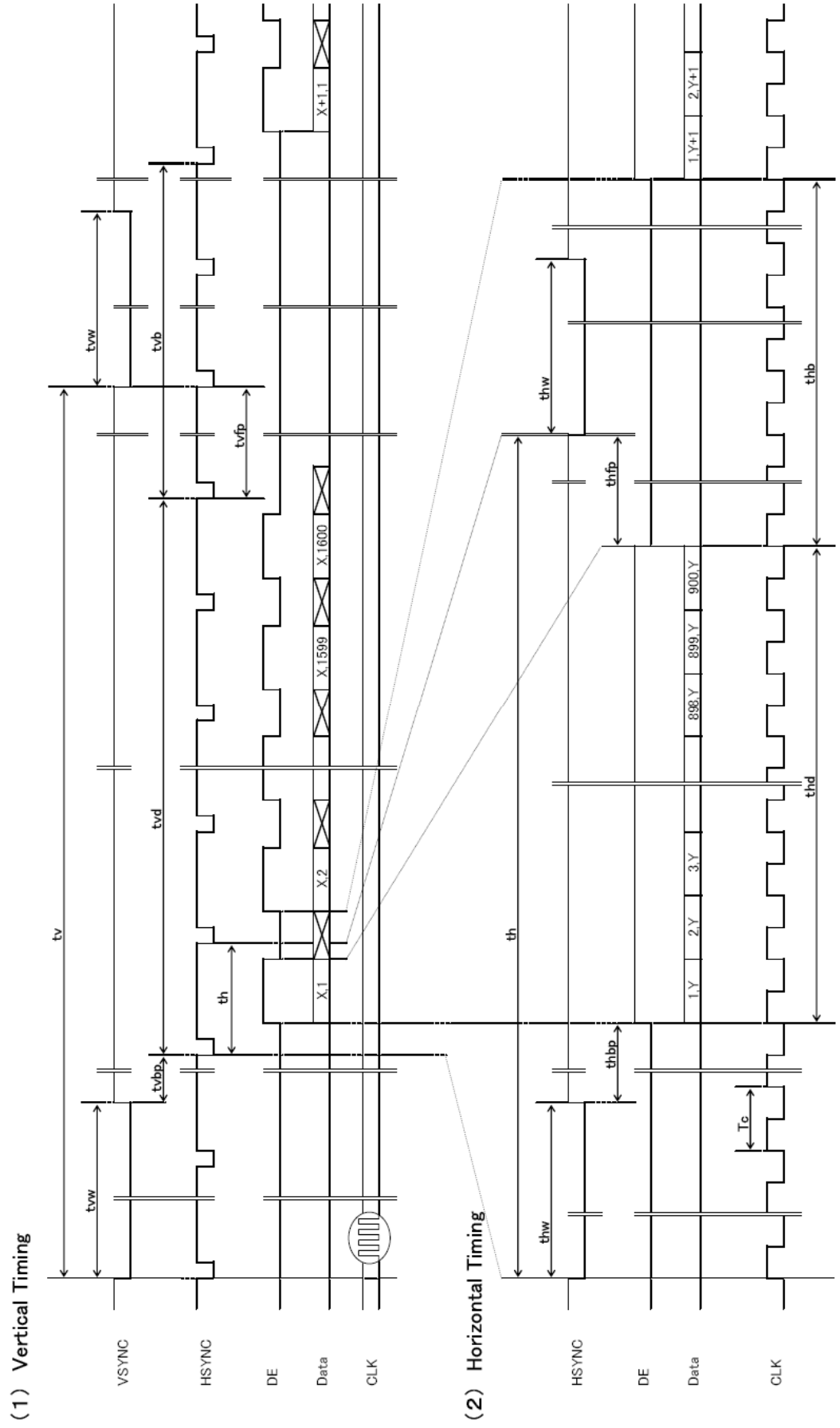
6.3 Interface Timing

6.3.1 Timing diagram



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6.3.2 Timing Specifications

●60Hz

項目	記号	Min.	Typ.	Max.	単位
フレーム周期	tv	912	915	920	th
		16.53	16.68	18.10	ms
垂直表示期間	tvd	900	900	900	th
垂直ブランキング期間	tvb	12	15	20	th
1走査線時間	th	1930	1969	2085	tc
		18.13	18.23	19.67	μs
水平表示期間	thd	1600	1600	1600	tc
水平ブランキング期間	thb	330	369	485	tc
クロック周期	tc	106	107.99	115	MHz
		8.696	9.260	9.434	ns

●50Hz

項目	記号	Min.	Typ.	Max.	単位
フレーム周期	tv	912	915	920	th
		19.18	19.99	21.02	ms
垂直表示期間	tvd	900	900	900	th
垂直ブランキング期間	tvb	12	15	20	th
1走査線時間	th	1830	1857	1891	tc
		21.03	21.85	22.85	μs
水平表示期間	thd	1600	1600	1600	tc
水平ブランキング期間	thb	230	257	291	tc
クロック周期	tc	82.75	85	87	MHz
		11.494	11.765	12.085	ns

●40Hz

項目	記号	Min.	Typ.	Max.	単位
フレーム周期	tv	912	915	920	th
		20.86	25.00	30.23	ms
垂直表示期間	tvd	900	900	900	th
垂直ブランキング期間	tvb	12	15	20	th
1走査線時間	th	1830	2079	2174	tc
		22.88	27.32	32.85	μs
水平表示期間	thd	1600	1600	1600	tc
水平ブランキング期間	thb	230	479	574	tc
クロック周期	tc	66.17	76.09	80	MHz
		12.500	13.142	15.113	ns

項目	記号	Min.	Typ.	Max.	単位	
垂直同期信号パルス幅	tvw	1			th	
垂直フロントポーチ	tvfp	1			th	
垂直バックポーチ	tvbp	2			th	※1
水平同期信号パルス幅	thw	8			tc	
水平フロントポーチ	thfp	8			tc	
水平バックポーチ	thbp	8			tc	※2
DEパルス幅	thd	1600	1600	1600	tc	

※1 右の数式を満足する事。 tvb = tvw + tvfp + tvbp

※2 右の数式を満足する事。 thb = thw + thfp + thbp

1） フレーム周期が遅くなりますと、フリッカ、点欠点など表示品位の低下を招く場合があります。

2） Display port の AC, DC, タイミングについては VESA Display port Ver. 1. 1a 参照ください。

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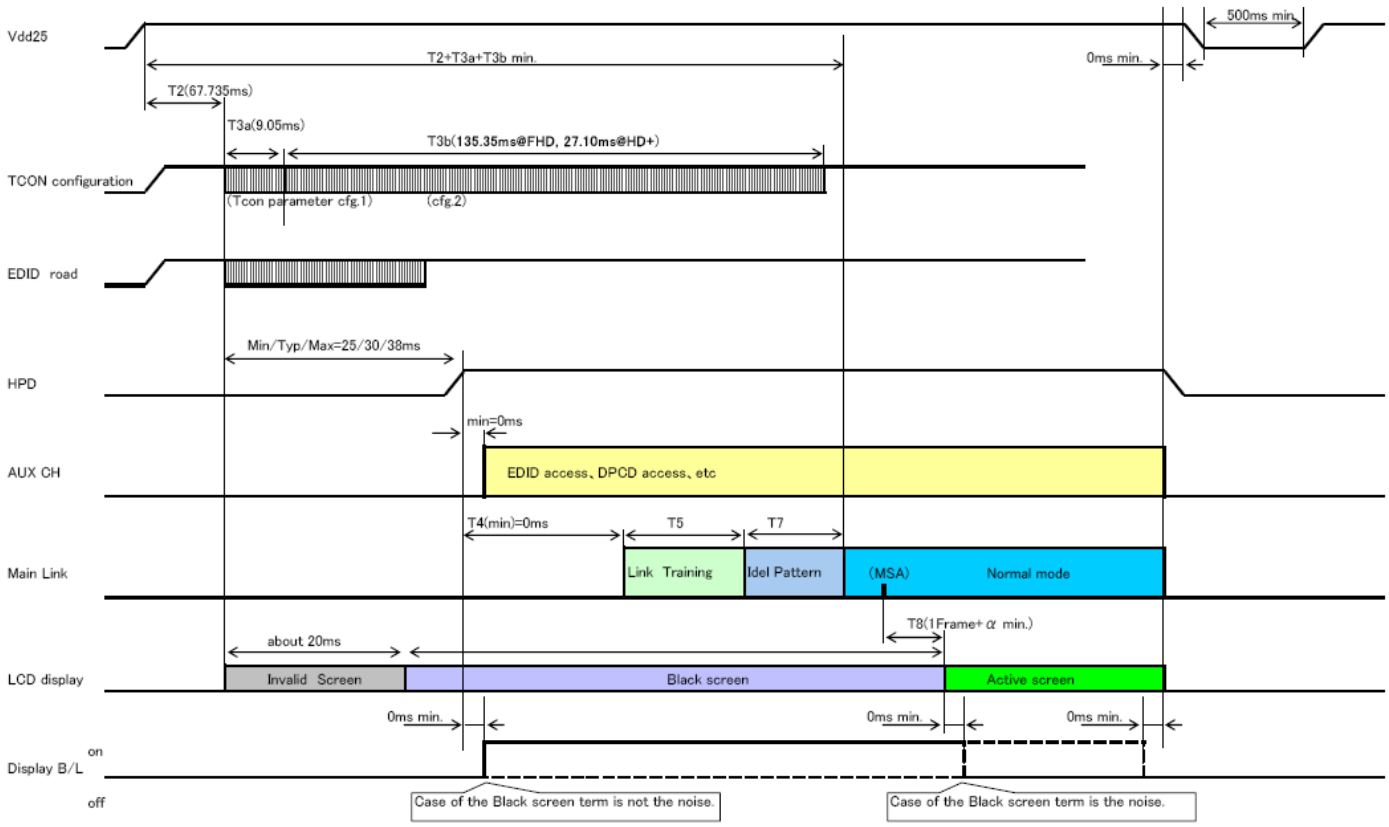
6.4 Power ON/OFF Sequence

Power on/off sequence is as follows. Interface signals and LED on/off sequence are also shown in the chart. Signals from any system shall be Hi-Z state or low level when VDD is off



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7. Panel Reliability Test

7.1 Reliability Test

This module is then tested in the following table.

However, this study will be conducted only one test item in the same module, multiple-item test module to perform the same

試験項目	試　験　条　件	備考	結果
高温動作	５０℃　　計　４８時間	動作[3)]	3p/3p OK
高温保存	６５℃　　計　４８時間	非動作	3p/3p OK
高温高湿動作	４５℃，９０％　　計　４８時間	動作[3)]	3p/3p OK
高温高湿保存	５０℃，９０％　　計　４８時間	非動作	3p/3p OK
低温動作	０℃　　計　４８時間	動作[3)]	3p/3p OK
低温保存	－３０℃　　計　４８時間	非動作	3p/3p OK
温度急変	－３０℃（２時間）⇔６５℃（２時間）　１２サイクル	非動作	3p/3p OK

注１）試験はモジュールに結露の無い条件にて実施する。
注２）試験後、常温常湿（１５℃～３５℃，４５～６５%(ＲＨ)）で２時間以上放置後、検査を実施する。
注３）周囲温度　：Ｔａ　２５±５℃，周囲湿度　：Ｈａ　６５±２０%ＲＨ，電源電圧　：V_{DD} ２.５Ｖ;LED 入力順電流　：１６ｍＡ

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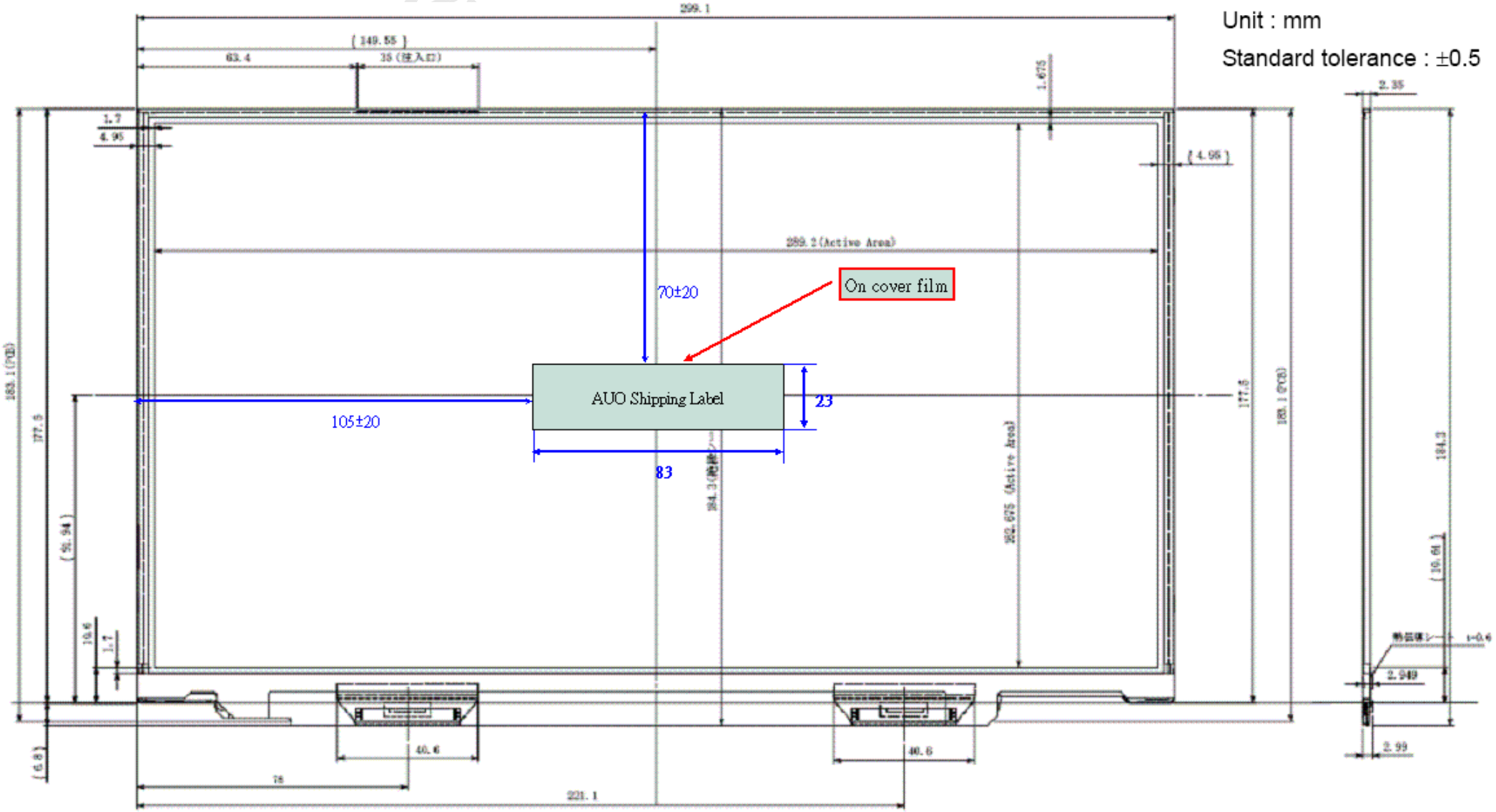
8. Mechanical Characteristics

8.1 LCM Outline Dimension

8.1.1 Standard Front View

Unit : mm

Standard tolerance : ±0.5



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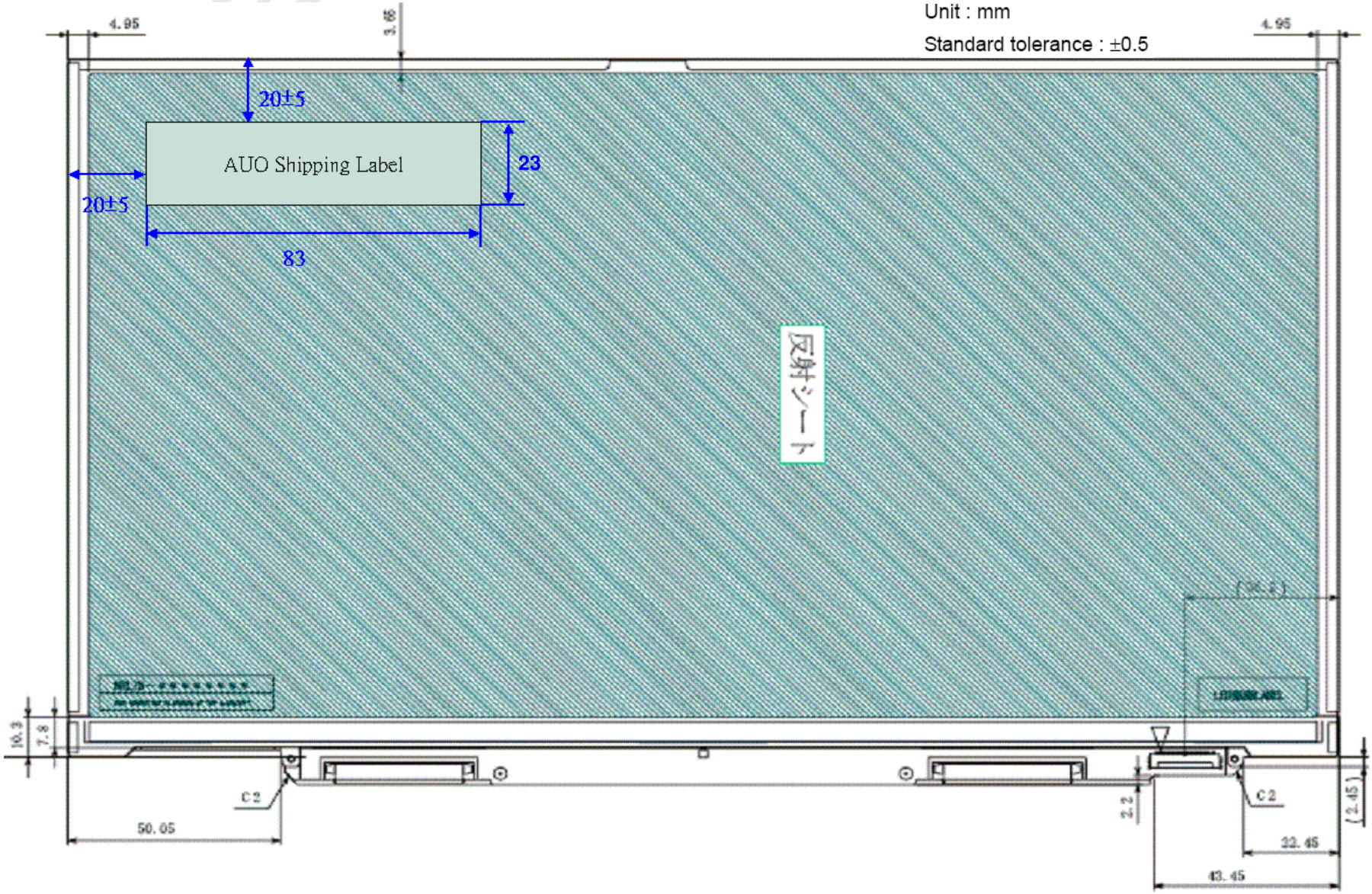
8.1.2 Standard Rear View



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9. Shipping and Package

9.1 Shipping Label Format

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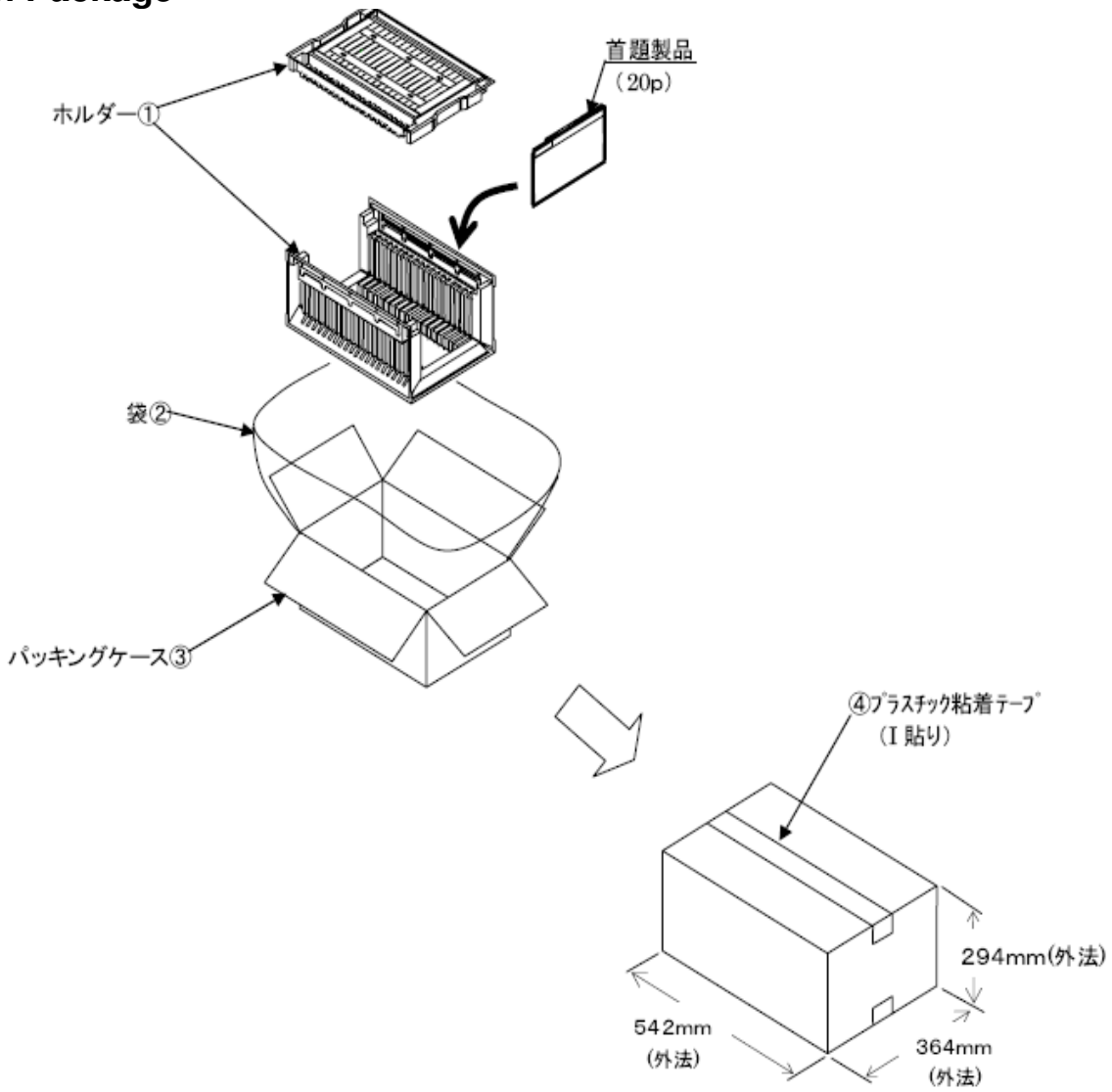
9.2 Carton Package



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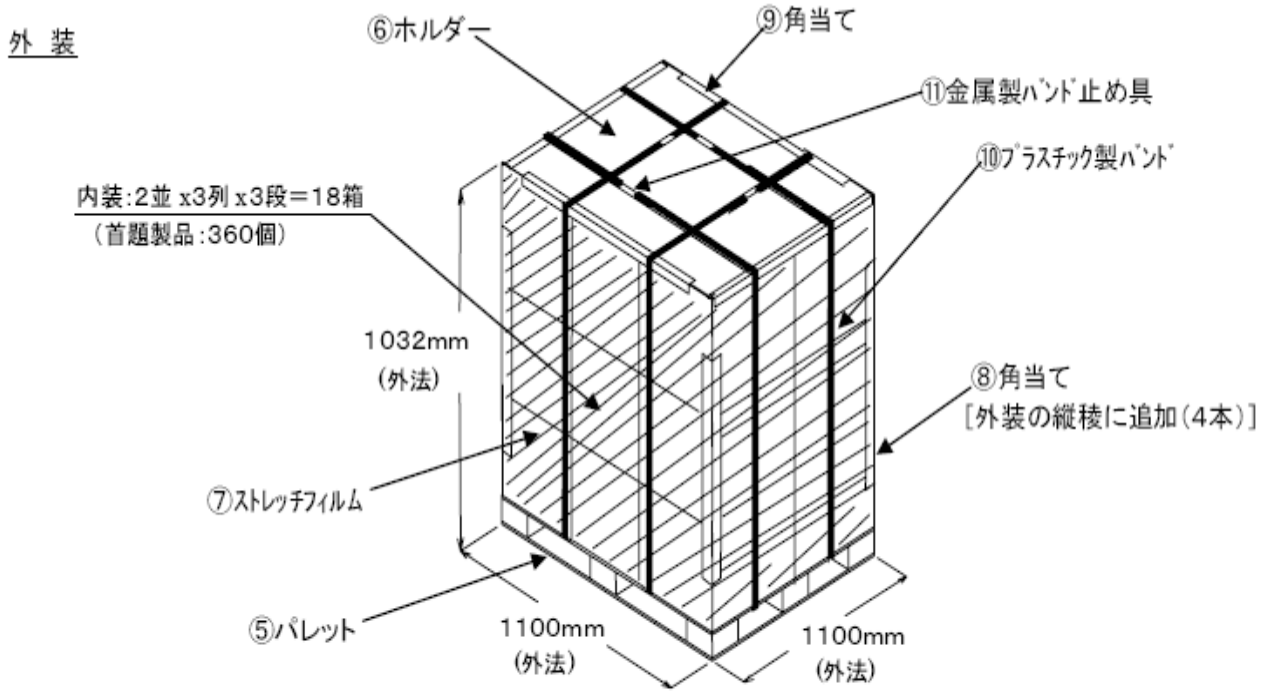
9.3 Shipping Package of Palletizing Sequence



(注1)端数の場合は、下記の処置を行うこと。
＊内装の積み段数を減らす。
＊同じ段内で端数が生じた場合は、空の内装箱を詰め合わせる。

(注2)ストレッチフィルムの巻き方
(1)巻き始めは粘着面を内側にしてフィルム端を図1の如く固定する。
(2)巻き順は下側→上側→下側へ行う。
(3)パレットの引っかかりは、フィルムを50mm以上でローピングする。
(4)巻き数は下側2. 5巻、中間、上側2巻とする。
(5)巻きテンションはフィルム伸び率で約10%にする。
(6)天面の引っかかり折り幅は200mm以上とする。
(7)巻き終わりは、図2の如くフィルム端を固定する。
(8)フィルムのつなぎはないこと。

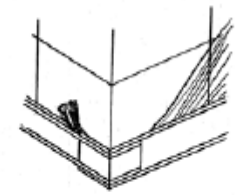


図1

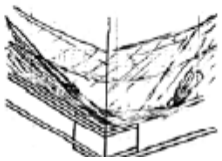


図2

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10. Appendix

10.1 EDID Description

Data No.	Data (Hex)	Data (Dec)	説明	実入力	2進数表示	10進数表示
0	00	0	固定入力(Header)			
1	FF	255				
2	FF	255				
3	FF	255				
4	FF	255				
5	FF	255				
6	FF	255				
7	00	0				
8	4D	77	メーカID	SNY	01001101	
9	D9	217	(ASCIIコードで入力)		11011001	
10	FA	250	プロダクトID プロダクトID	06FA		
11	06	6	(10、11番地は逆転して使用される)			
12	01	1	シリアルNo.	未記入		
13	01	1	未記入の場合は『01』入力			
14	01	1				
15	01	1				
16	2D	45	製造週(1-53週:閏年は54週)	45週		45
17	13	19	製造年(製造年-1990)	2009年		19
18	01	1	EDID Version (Structure ①. ②)	1.3		1
19	04	4	①:18番地 ②19番地			4
20	95	149	Video Input 情報		10010101	
21	1D	29	画面サイズ(cm) 画面サイズ	13.1 inch		29
22	10	16	(21番地:横 22番地:縦)	29cm/16cm		16
23	78	120	階調:γ値(γ値×100-100)	γ=2.2		120
24	02	2	サポート情報		00000010	
25	0F	15	色度:R,G,B,W		00001111	
26	15	21	10進数を2進数(10桁)に変換。 色度		00010101	
27	9A	154	その際、誤差は±0.0005以下とする。	Rx=0.602	10011010	
28	56	86	(例:0.610→1001110001)	Ry=0.336	01010110	
29	4B	75	(0.6103516)	Gx=0.296	01001011	
30	8B	139		Gy=0.546	10001011	
31	26	38		Bx=0.148	00100110	
32	20	32		By=0.126	00100000	
33	50	80		Wx=0.313	01010000	
34	54	84		Wy=0.329	01010100	
35	00	0	Establish Timing	該当無し	00000000	
36	00	0	受像可能な解像度には全てbitを立てる。		00000000	
37	00	0	LCDは60Hzのみbitを立てるのが良い。		00000000	

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Data No.	Data (Hex)	Data (Dec)	説明	実入力	2進数表示	10進数表示
38	A9	169	**Standard Timing** 色度	1600		169
39	C0	192	・受像可能な代表的な全ての解像度を記入。	16:9 60Hz	11000000	
40	01	1	・2Byteのｺｰﾄﾞで1つの解像度を表示。			
41	01	1	・計8種類の解像度を記述出来る。			
42	01	1	・E-Timing(35-37番地)と重複しない事。			
43	01	1	・E-TimingとS-Timingのどちらかに			
44	01	1	最大解像度を記述する。			
45	01	1	・未使用部分には 01 01 を入れる。			
46	01	1				
47	01	1	#1:(水平解像度/8)-31 → 16進数			
48	01	1	#2:7-6Bit…ｱｽﾍﾟｸﾄ比			
49	01	1	16:10 → 0,0			
50	01	1	4:3 → 0,1			
51	01	1	5:4 → 1,0			
52	01	1	16:9 → 1,1			
53	01	1	5-0Bit…ﾘﾌﾚｯｼｭﾚｰﾄ - 60			
54	2F	47	**推奨ﾀｲﾐﾝｸﾞ(24番地のﾌﾗｸﾞを立てておく)** 推奨ﾀｲﾐﾝｸﾞ			
55	2A	42	54,55番地:ﾋﾟｸｾﾙｸﾛｯｸ/10000	107.99MHz		10799
56	40	64	56番地:水平表示期間(pixels)/下位8bit(全12bit)	1600Pixels	01000000	1600
57	71	113	57番地:水平ﾌﾞﾗﾝｷﾝｸﾞ(pixels)/下位8bit(全12bit)	369Pixels	01110001	369
58	61	97	58番地:H-A上位4bit + H-B上位4bit		01100001	
59	84	132	59番地:垂直表示期間(lines)/下位8bit(全12bit)	900Lines	10000100	900
60	0F	15	60番地:垂直ﾌﾞﾗﾝｷﾝｸﾞ(lines)/下位8bit(全12bit)	15Lines	00001111	15
61	30	48	61番地:V-A上位4bit + V-B上位4bit		00110000	
62	40	64	62番地:H-Sync. Offset(ﾌﾛﾝﾄﾎﾟｰﾁ)/下位8bit(全10bit)	64Pixels	01000000	64
63	40	64	63番地:H-Sync.(ﾊﾟﾙｽ幅)/下位8bit(全10bit)	64Pixels	01000000	64
64	33	51	64番地:V-ﾌﾛﾝﾄﾎﾟｰﾁ下位4bit + V-Sync.下位4bit (全6bit)	3/3Lines	00110011	
65	00	0	65番地:ｺﾒﾝﾄ参照		00000000	
66	23	35	66番地:画面ｻｲｽﾞ横(mm)/下位8bit(全12bit)	291 mm	00100011	291
67	A4	164	66番地:画面ｻｲｽﾞ縦(mm)/下位8bit(全12bit)	164mm	10100100	164
68	10	16	68番地:画面ｻｲｽﾞ上位4bit + 画面ｻｲｽﾞ縦上位4bit		00010000	
69	00	0	69番地:H-Border(全8bit)	0Pixels	00000000	0
70	00	0	70番地:V-Border(全8bit)	0Lines	00000000	0
71	18	24	71番地:ﾌﾗｸﾞ(E-EDID Standard Page 18 of 32参照)		00011000	
72	B9	185	**40Hzﾀｲﾐﾝｸﾞ** 40Hzﾀｲﾐﾝｸﾞ			
73	1D	29	72,73番地:ﾋﾟｸｾﾙｸﾛｯｸ/10000	76.09MHz		7609
74	40	64	74番地:水平表示期間(pixels)/下位8bit(全12bit)	1600Pixels	01000000	1600
75	DF	223	75番地:水平ﾌﾞﾗﾝｷﾝｸﾞ(pixels)/下位8bit(全12bit)	479Pixels	11011111	479
76	61	97	76番地:H-A上位4bit + H-B上位4bit		01100001	
77	84	132	77番地:垂直表示期間(lines)/下位8bit(全12bit)	900Lines	10000100	900
78	0F	15	78番地:垂直ﾌﾞﾗﾝｷﾝｸﾞ(lines)/下位8bit(全12bit)	15Lines	00001111	15
79	30	48	79番地:V-A上位4bit + V-B上位4bit		00110000	
80	40	64	80番地:H-Sync. Offset(ﾌﾛﾝﾄﾎﾟｰﾁ)/下位8bit(全10bit)	64Pixels	01000000	64
81	40	64	81番地:H-Sync.(ﾊﾟﾙｽ幅)/下位8bit(全10bit)	64Pixels	01000000	64
82	33	51	82番地:V-ﾌﾛﾝﾄﾎﾟｰﾁ下位4bit + V-Sync.下位4bit (全6bit)	3/3Lines	00110011	
83	00	0	83番地:ｺﾒﾝﾄ参照		00000000	
84	23	35	84番地:画面ｻｲｽﾞ横(mm)/下位8bit(全12bit)	291 mm	00100011	291
85	A4	164	85番地:画面ｻｲｽﾞ縦(mm)/下位8bit(全12bit)	164mm	10100100	164
86	10	16	86番地:画面ｻｲｽﾞ上位4bit + 画面ｻｲｽﾞ縦上位4bit		00010000	
87	00	0	87番地:H-Border(全8bit)	0Pixels	00000000	0
88	00	0	88番地:V-Border(全8bit)	0Lines	00000000	0
89	18	24	89番地:ﾌﾗｸﾞ(E-EDID Standard Page 18 of 32参照)		00011000	

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Data No.	Data (Hex)	Data (Dec)	説明	実入力	2進数表示	10進数表示
90	00	0	**ﾓﾃﾞﾙ名 (識別 FC)**			
91	00	0				
92	00	0	Header:00 00 00 FC 00			
93	FC	252	ﾓﾃﾞﾙ名:ASCIIｺｰﾄﾞにて記述			
94	00	0	Terminator:0A			
95	53	83	Blank:20	S		
96	6F	111		o		
97	6E	110		n		
98	79	121		y		
99	20	32				
100	4C	76		L		
101	43	67		C		
102	44	68		D		
103	0A	10	ASCIIｺｰﾄﾞ			
104	20	32				
105	20	32				
106	20	32				
107	20	32				
108	00	0	**Monitor Range (識別 FD)**			
109	00	0				
110	00	0	Header:00 00 00 FD 00			
111	FD	253				
112	00	0				
113	27	39	113番地:最小ﾌﾚｰﾑ周波数(Hz) 整数入力	39Hz		39
114	3D	61	114番地:最大ﾌﾚｰﾑ周波数(Hz) 整数入力	61Hz		61
115	24	36	115番地:最小水平周波数(kHz) 整数入力	36kHz		36
116	37	55	116番地:最大水平周波数(kHz) 整数入力	55kHz		55
117	0B	11	117番地:最大ｸﾛｯｸ周波数(MHz)/10	107.99MHz		10.8
118	00	0				
119	0A	10				
120	20	32	118-125番地:			
121	20	32	Terminator…00 0A			
122	20	32	残り…20 20 20 20 20 20			
123	20	32	Terminator:0A			
124	20	32	Blank:20			
125	20	32				
126	00	0	**Extension Flag** (Extensionが無い場合は"00"と記入)			
127	D2	210	**Check-Sum** (0-127番地を合計し下2桁が00になる値)			

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